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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,630	10/27/2003	Michael Buchmann	964-031639	2616

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EXAMINER

FOX, CHARLES A

ART UNIT PAPER NUMBER

3652

DATE MAILED: 02/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/694,630

Applicant(s)

BUCHMANN ET AL.

Examiner

Charles A. Fox

Art Unit

3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20050307.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Drawings

The drawings are objected to because they do not follow convention drawing rules. Figures 1b,2b,3b and 4b all have similar problems that need to be addressed, only figure 1b will be discussed and appropriate changes should be made to all applicable drawings. The problems are as follows:

Reference numeral (7) has a leader line pointing to element (1), figure 3b is correctly done regarding numeral (7) and can be used as a model in this regard.

Any portion of an element that underlies another element should be drawn with dashed lines. Thus the portion of element (5) underlying element ((3) should be dashed as well as the rollers (6) that underlie the battery block (1).

Reference numeral (8) should be deleted from the plan view drawings as the leader lines appear to be referencing the rollers. It is clear from the elevation drawings where the holes (8) are located and they need not be pointed out in the plan drawings.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

Art Unit: 3652

of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. What the conveyor is external to is not entirely clear. The limitation should be rewritten as "a roller conveyor external to said industrial lift truck".

Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 5 a one-part component can have just one part, in the instant case the conveyor has many components making up a unitary conveyor. In the art rejection below the conveyor is considered to be of unitary design with a plurality of individual components making up the whole.

Regarding claim 6 as in claim 5 it is not clear what the two or more parts refer to as the embodiment shown in figure 1 has more than one part making up the unitary conveyor. In the art rejections below the device is treated as the roller conveyor

comprises at least two separate conveying sections as shown in figures 3 or 4.
Clarification is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3,5,11 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Jarl. Regarding claim 1 Jarl EPO 0,030,928 discloses a device for handling batteries in a forklift comprising:

an external roller conveyor (16), of which at least a portion can be raised and lowered;

wherein the roller conveyor is configured to be placed under a battery compartment of said forklift;

wherein the battery compartment has at least one hole for receiving a roller from said roller conveyor.

Regarding claim 2 Jarl also discloses that the battery is completely removable from the forklift via said conveyor.

Regarding claim 3 Jarl further discloses the floor of said battery compartment has a plurality of openings for receiving a plurality of rollers from said conveyor.

Regarding claim 5 Jarl further discloses that the roller conveyor is in the form of a one part component.

Regarding claim 11 Jarl also discloses that the roller conveyor is effectively connected with a movable lift device.

Regarding claim 14 Jarl also disclose a stop (17) on the device for keeping the battery from moving on the device during transport.

Claim Rejections - 35 USC § 102

Claims 1, 6,7 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Aarseth. Regarding claim 1 Aarseth US 5,998,963 teaches a battery changing system for electric vehicles comprising:

an external roller conveyor (70,80,94);

wherein at least one section (70) can be raised and lowered;

wherein the conveyor is configured to be placed under a battery compartment in an electric vehicle (11);

wherein the battery compartment has at least one opening to receive the roller conveyor (70).

Regarding claim 6 Aarseth also discloses that the conveyor has multiple sections.

Regarding claim 7 Aarseth further discloses:

that conveyor section (80) is stationary and configured to be next to a battery compartment of the electric vehicle;

and that section (70) can be raised and lowered via lift device (76) while under the battery compartment for changing the battery block of the electric vehicle.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jarl as applied to claim 1 above, and further in view of Japanese 11-246193 (herein JP '193). Jarl teaches the limitations of claim 1 as above, he does not teach the floor of the battery compartment as having a single opening. JP '193 teaches a forklift with a battery compartment (7) that has one large opening in its floor for allowing a lift platform (11) to raise a battery block for removal. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Jarl with a floor as taught by JP '193 in order to make alignment between the lift device and forklift easier as well as providing more support to the battery block during lifting and lowering.

Claims 6,8 and 9 are is rejected under 35 U.S.C. 103(a) as being unpatentable over Jarl as applied to claim 1 above, and further in view of Driggers. Jarl teaches the limitations of claim 1 as above, he does not teach the conveyor as having more than one conveying section. Driggers US 4,459,732 teaches an extendable conveyor comprising:

a first (3,5) and a second (13,15) conveying section;

wherein said second section is movable relative to said first section;

wherein guide devices in elements (9 and 17) for guiding said second section as it extends in a longitudinal direction. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Jarl with an extendable member as taught by Driggers in order to extend under a battery block in a vehicle that is too low to the ground to allow access to the entire conveyor.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jarl as applied to claim 1 above, and further in view of Ouellette. Jarl teaches the limitations of claim 1 as above, he does not teach a powered means to move the battery. Ouellette US 4,308,946 teaches a roller conveyor (20) with driven rollers (40) for moving a load therealong. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Jarl with powered rollers as taught by Ouellette in order to aid in moving a heavy load thereby helping to avoid operator strain.

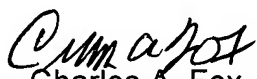
Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jarl as applied to claim 1 above, and further in view of Ringer. Jarl teaches the limitations of claim 1 as above, he does not teach actively connecting the roller conveyor to the electric vehicle. Ringer US 4,093,084 teaches a conveyor for unloading heavy containers from a vehicle, wherein the vehicle and conveyor are connected via members (58,59) during loading and unloading of the vehicle. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Jarl with connection members as taught by Ringer in order to keep the conveyor at a constant position relative to the vehicle while moving the battery blocks.

Art Unit: 3652

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 571-272-6923. The examiner can normally be reached between 7:00-4:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached at 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 2-14-06
Charles A. Fox
Examiner
Art Unit 3652